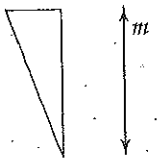
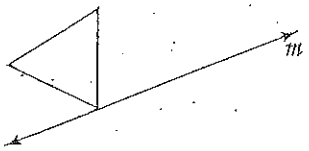
Geometry

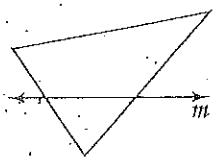
Name _____

13.5

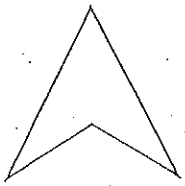
Copy each figure. Use a straightedge to draw the reflection image of each figure over line m.

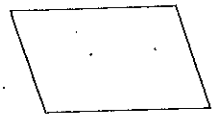
1. 

2. 

3. 

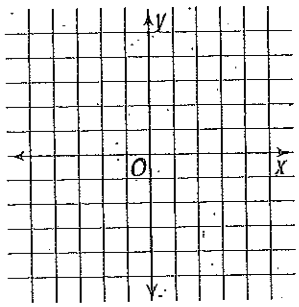
Determine if each figure has line symmetry, point symmetry, or both.

4. 

5. 

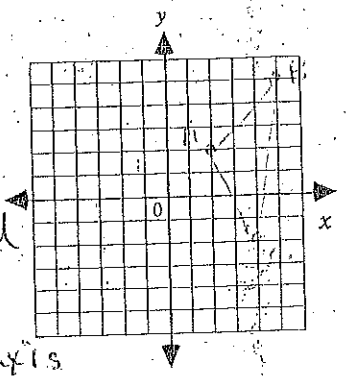
6. 

7. Given $A(-1, 5)$ and $B(4, -2)$, graph $\overline{AB}$ on a coordinate plane. Then draw the reflection image over the line of reflection, the x-axis.



(8) Reflect $(-6, 4)$ over 1) x-axis
2) y-axis
3) y=x line

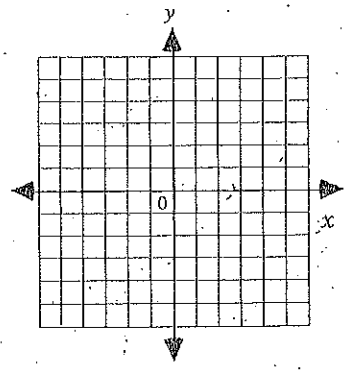
(9)



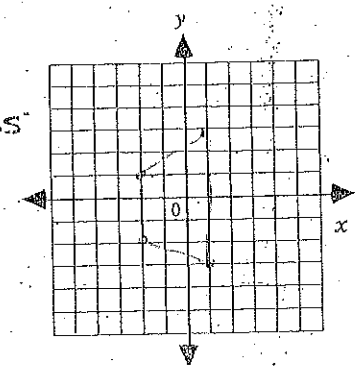
Slide up one unit and then reflect across the y-axis

(10) Reflect

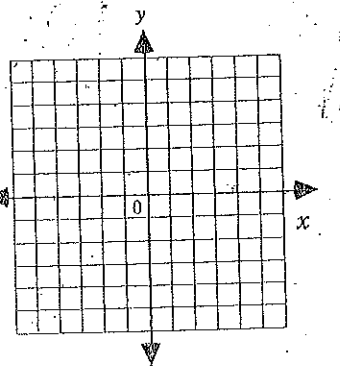
$\triangle ABC$
$A(-2,0)$ $B(1,2)$
$C(3,-1)$ across the x-axis



(11) Reflect $\square ABCD$ across the line $y=2$



(12) Reflect $\triangle ABC$ across the $y=x$ line
$A(0,4)$ $B(0,-1)$ $C(-4,1)$

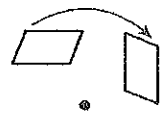


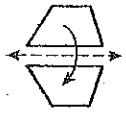
NAME _____ DATE _____ PERIOD _____

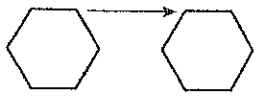
Skills Practice

Transformations on the Coordinate Plane

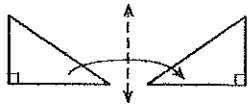
Identify each transformation as a *reflection*, *translation*, *dilation*, or *rotation*.

1. 

2. 

3. 

4. 

5. 

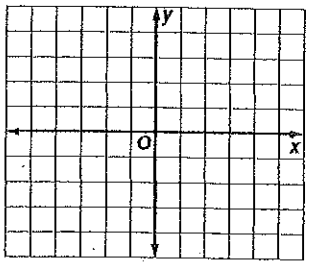
6. 

For Exercises 7–10, complete parts a and b.

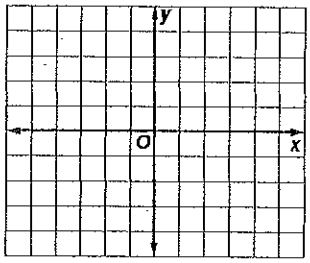
a. Find the coordinates of the vertices of each figure after the given transformation is performed.

b. Graph the preimage and its image.

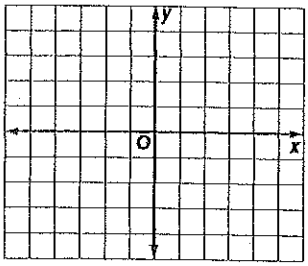
7. triangle ABC with $A(1, 2)$, $B(4, -1)$, and $C(1, -1)$ reflected over the y-axis



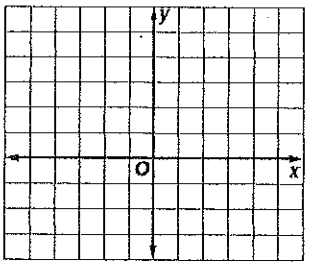
8. parallelogram $PQRS$ with $P(-2, -1)$, $Q(3, -1)$, $R(2, -3)$, and $S(-3, -3)$ translated 3 units up



9. trapezoid $JKLM$ with $J(-2, 1)$, $K(2, 1)$, $L(1, -1)$, and $M(-1, -1)$ dilated by a scale factor of 2



10. triangle STU with $S(3, 3)$, $T(5, 1)$, and $U(1, 1)$ rotated 90° counterclockwise about the origin



Lesson 4-2